

Good prospects abound at \$4/Mcf

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With US drilling activity still on the rise, independent producers have enough good prospects to expand natural gas production over the next 3 years, if wellhead prices remain above \$4/ Mcf, said James Stone, an oil field services analyst at UBS Warburg LLC, New York.

Drilling

Meanwhile, despite an estimated 10-15% drop in costs of oil field services, the aggregate fully loaded finding costs of 57 oil and gas independents increased by more than 30% to nearly \$9.80/boe in 2002, compared with \$7.40/boe in 2001 and a 5-year average of \$6.85/boe, said Robert S. Morris, an analyst for Banc of America Securities, New York.

"The significant uptick primarily reflects the degradation of the independents' prospect inventories around the globe, which was underscored by a significant drop in proven reserves added per successful well," he said.

Upbeat field response

Based on a UBS Warburg poll of 1,400 exploration and production field personnel, Stone said, "The current environment is ripe for higher drilling levels in the US, producers are flush with cash, gas production is declining, and the more elastic portions of gas demand, such as residential and utility demand for gas, are growing."

Therefore, he said, "We believe US gas drilling should continue to rise as producers drill their inventory of prospects in an attempt to grow gas production from current levels."

In a report on that poll, Stone said, "We have been uncomfortable with the view that as a result of a 6-month period in 2001, in which [the industry] ran 1,000-1,300 rigs, the US exploration and production industry all of a sudden ran out of drilling prospects. We heard many E&P companies discussing a lack of prospects, and we saw this issue materialize in many presentations, but when we . . . asked a company if it lacked prospects, the answer was invariably 'No.'"

Available prospects

The poll verified Stone's suspicions.

Of the respondents, 74.2% said there are enough good drilling prospects to exploit for another 5 years at a commodity price of \$4/ Mcf, while 97% said they have the quality prospects to expand production over 3 years at that price. Even at a price of \$3.50/ Mcf, 88.3% still said they could expand production.

When UBS Warburg analysts further defined that question, a whopping 69.5% said they could still expand production even with a 25% across-the-board price increase in oil field services, if gas were priced at \$4/Mcf.

The analysts concluded, "The real sensitivity among operators is to cost inflation; price levels similar to 2001 cause a sharp falloff in the viability of prospects and drilling."

Other conclusions from that survey were as follows:

- * The high level of drilling activity in 2001 merely reduced the number of prospects that are economic at a gas price of \$3.50/Mcf. Most of the respondents indicated that the quality of prospects available today is as good or better than those available 2 years ago.

- * E&P field personnel are confident that US gas prices will remain above \$4 for the foreseeable future.

- * The recent upward trend in finding and development costs is a key driver of the secular rise in gas prices. "We estimate that independent E&P companies need over \$4[/Mcf] gas to earn the same return on capital today as they could in 1997 at \$2.50[/Mcf] gas," analysts said.

- * Cash flow generated by prices of \$4/Mcf for gas and \$25/bbl for oil or better is sufficient to maintain or expand activity over the next 3 years.

- * Outside capital is available to the industry and is no impediment to increased drilling.

In the most negative response in the poll, 62.6% of the respondents said restrictions to drilling on federal land in the Lower 48 are significantly impeding industry's ability to increase US gas production, said Stone.

Although the amount of gas reserves added per well drilled has declined in the past several years, Stone said, it remains virtually the same as in

the early 1990s. "Therefore, it is difficult to argue that a material deterioration in the productivity of US gas prospects has occurred," he said.

Gulf of Mexico failing

An examination of drilling, reserve replacement, production, and drilling costs over the last 5-10 years shows "a sharp rise in drilling reserve replacement costs in the Gulf of Mexico coupled with a sharp decline in the reserves added per well completed," said Stone.

"The data for the more conventional drilling market in the Gulf of Mexico [shallow waters] are most likely even more troubling." Only the growth of deepwater gas reserves has allowed the overall amount of gulf reserves to remain flat, while both reserves and production in the gulf's shallow waters have been falling for the past 5 years, he said.

In US land operations, however, Stone said, "Over the past 10 years, there has been virtually no decrease in reserves added [through the drill bit] per well and only a small increase in the reserve replacement costs based on the costs per well in the onshore market."

As a result, he said, "Producers should be far more bullish on the prospects for land drilling in the US than in the offshore market."

2002 costs

Aggregate exploration and development costs, excluding reserve revisions and acquisitions, among those independents averaged nearly \$12.70/boe in 2002, up 65% from 2001 levels, Morris said.

"The significant increase was underscored by a nearly 40% drop in total proven reserves added per successful well, which fell to near a 10-year low of just over 200 million boe/well," Morris said.

"This is partly a result of producers depleting their drilling inventories as they have shifted their focus away from exploration toward development drilling over the past few years, in an attempt to boost or sustain near-term production growth and to improve overall returns."

Exploration spending as a percentage of total E&D costs among Banc of America's study group of 57 independents dropped in each of the past 5 years to 29% in 2002 from 39% in 1998, Morris reported.

Rig 115, owned and operated by Nabors Drilling International Ltd., the

international arm of Nabors Industries Ltd., is working under long-term contract to Saudi Arabian Oil Co. (Saudi Aramco) in Saudi Arabia.

"In other words, companies have not been spending the necessary capital to replenish their drilling inventories and no longer have an abundance of quality projects to develop or pursue without having to assume higher 'normalized' commodity prices," he said.

Meanwhile, Morris said, US drillbit costs for independents, excluding revisions and acquisitions, averaged \$12.60/boe, up more than 55% from \$8.05/boe in 2001. That also reflects degradation of US prospect inventories, underscored by a 35% drop in total proven reserves added per successful well to a 10-year low of 287 million boe in 2002 from 295 million in 2001, he said.

"Interestingly, total proven reserves added per successful domestic well by the independents last year were roughly 25% lower than internationally, illustrating the overall maturity of their US asset base, although only 37% of the independents' reserve additions last year came from outside of the US," said Morris.

Major's F&D costs

A study group of eight major integrated oil and gas companies, however, posted a 4% decrease in fully loaded finding and development costs to nearly \$5.50/boe in 2002, compared with roughly \$5.70/boe in 2001 and a 5-year average of \$4.75/boe, Morris said.

Among the majors, aggregate E&D costs, excluding revisions and acquisitions, rose nearly 15% to \$7.55/boe in 2002, from \$6.55/boe in 2001. Proven reserves added per successful well increased by nearly 25% among the majors.

"This primarily reflects the majors' focus on less mature oil and gas basins around the globe, as proven reserves added per successful well domestically for the majors dropped 15% last year, while outside of the US, proven reserves added per well increased roughly 20%," Morris said.

"Thus the rise in drillbit costs for the majors last year was primarily driven by a 45% uptick in E&D costs per well drilled, which reflects the higher cost associated with targeting larger prospects around the globe. In fact, the majors spent 73% of their total capital outlays on international programs in 2002 vs. 63% in 2001," he said.

Gas drilling increases

"The recent pullback in [US] gas development drilling activity has been reversed," said Paul Horsnell, J.P. Morgan Securities Inc., London, in a May 23 report. He said development drilling for US gas was up 27.6% from year-ago levels through mid-May, while gas exploration was down 20% for the same period.

"Oil activity remains extremely muted," Horsnell said. Oil development drilling was up 1.7% from the same time last year, he said, but down 40% from 2 years ago.

"Over the last year, the only source of [oil] activity growth has been Texas," he said. "Oil activity is significantly lower, compared with a year ago in Louisiana, down 42.9%; California, down 38.9%; and the federal waters of the US gulf, down 90.9%."

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[TOP](#)

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